

Remarks

Claims 1-3, and 7-46 are pending. Claims 19-33 and 35-46 were previously withdrawn. Claims 4-6 were canceled. Claims 1-3, 7-18 and 34 are rejected.

Rejection under 35 U.S.C. §112

Claim 34 is rejected as allegedly lacking enablement under 35 U.S.C. §112, first paragraph for failing to include heparin as an anti-thrombogenic material with a superoxide dismutase mimetic (SODm). Claim 34 is amended to include heparin as an anti-thrombogenic material with a superoxide dismutase mimetic (SODm). The rejection is therefore moot.

Rejections under 35 U.S.C. 103

Claims 1-3, 7-18 are rejected under 35 U.S.C. 103(a) as being obvious over WO 38546.

Claimed Invention

Claims 1, and 15 are independent claims.

Claim 1 defines a method for immobilizing an anti-thrombogenic material into a coating comprising a base coat layer posited on a surface of an implantable medical device within the mammalian body. The method requires (a) preparing a base coat mixture comprising a binding material, a grafting material, a photoinitiator, and a solvent; (b) applying the base coat mixture directly to the implantable medical device; (c) polymerizing the base coat mixture to form the base coat layer on the medical device by photopolymerization; (d) applying a formulation comprising the anti-thrombogenic material to the surface of the base coat layer; and (e) immobilizing the anti-thrombogenic material directly to chemically functional groups in the binding material within the base

coat layer on the surface of the medical device. The binding material of the base coat layer is selected from acetoacetoxy compounds. The anti-thrombogenic material is selected from glycosaminoglycans, superoxide dismutase mimetic (SODm), or combinations thereof.

Claim 15 defines a method for end-immobilizing an anti-thrombogenic material into a coating comprising a base coat layer posited on a surface of an implantable medical device for use within a mammalian body. The method comprises (a) preparing a base coat mixture comprising a binding material, a grafting material, a photoinitiator, and a solvent; (b) applying the base coat mixture directly to the implantable medical device; (c) polymerizing the base coat mixture to form the base coat layer on the medical device by photopolymerization; (d) applying a formulation comprising the anti-thrombogenic material to the surface of the base coat layer; and (e) end-immobilizing the anti-thrombogenic material, through a group that terminates the anti-thrombogenic material, directly to chemically functional groups in the binding material within the base coat layer on the surface of the medical device. The binding material of the base coat layer is selected from acetoacetoxy compounds. The anti-thrombogenic material is selected from glycosaminoglycans, superoxide dismutase mimetic (SODm), and combinations thereof.

WO 9938546

WO 38546 describes immobilizing a general therapeutic, diagnostic or hydrophilic agent onto a coating using a binding material. The binding material does not include any acetoacetoxy compounds. As a person of ordinary skill in the art would recognize, different binding materials would have different chemical activities and thus would require the antithrombogenic material to have different functional groups so as to

attach or immobilize the antithrombogenic material to a coating through the binding material. For example, a binding material with an amino group, which is a base, and one with a carboxylic acid group, which is an acid, would require totally opposite chemically functional groups on the antithrombogenic material. Therefore, claims 1, and 15 are patentably allowable over WO 38546 under 35 U.S.C. §103(a). Claims 2, 3 and 7-14, which depend from claim 1, and claims 16-18, which depend from claim 15, are also patentably allowable over WO 38546 in view of Fan under 35 U.S.C. 103(a) for at least the same reason.

The undersigned authorizes the examiner to charge any fees that may be required or credit of any overpayment to be made to Deposit Account No. **07-1850**.

CONCLUSION

Withdrawal of the rejection and allowance of the claims are respectfully requested.

If the Examiner has any suggestions or amendments to the claims to place the claims in condition for allowance, applicant would prefer a telephone call to the

undersigned attorney for approval of an Examiner's amendment. If the Examiner has any questions or concerns, the Examiner is invited to telephone the undersigned attorney at (415) 393-9885.

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Respectfully submitted,

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